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NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	JAN 27	Source of Registration (SR) information in REGISTRY updated and searchable
NEWS 4	JAN 27	A new search aid, the Company Name Thesaurus, available in CA/CAplus
NEWS 5	FEB 05	German (DE) application and patent publication number format changes
NEWS 6	MAR 03	MEDLINE and LMEDLINE reloaded
NEWS 7	MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS 8	MAR 03	FRANCEPAT now available on STN
NEWS 9	MAR 29	Pharmaceutical Substances (PS) now available on STN
NEWS 10	MAR 29	WPIFV now available on STN
NEWS 11	MAR 29	New monthly current-awareness alert (SDI) frequency in RAPRA
NEWS 12	APR 26	PROMT: New display field available
NEWS 13	APR 26	IFIPAT/IFIUDB/IFICDB: New super search and display field available
NEWS 14	APR 26	LITALERT now available on STN
NEWS 15	APR 27	NLDB: New search and display fields available
NEWS 16	May 10	PROUSDDR now available on STN
NEWS 17	May 19	PROUSDDR: One FREE connect hour, per account, in both May and June 2004
NEWS 18	May 12	EXTEND option available in structure searching
NEWS 19	May 12	Polymer links for the POLYLINK command completed in REGISTRY
NEWS 20	May 17	FRFULL now available on STN

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=> s thurmond robin/au
L1            7 THURMOND ROBIN/AU

=> s sun siquan/au
L2           57 SUN SIQUAN/AU

=> s karlsson lars/au
L3          179 KARLSSON LARS/AU

=> s histamine (s) receptor (s) h4
L4          178 HISTAMINE (S) RECEPTOR (S) H4

=> s (histamine (s) receptor (s) h4) (p) inflammation
L5           14 (HISTAMINE (S) RECEPTOR (S) H4) (P) INFLAMMATION

=> dup rem l5
PROCESSING COMPLETED FOR L5
L6           10 DUP REM L5 (4 DUPLICATES REMOVED)

=> d l6 total ibib kwic

L6   ANSWER 1 OF 10  CAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:         2004:220206  CAPLUS
DOCUMENT NUMBER:          140:270732
TITLE:                    Preparation of indoles as histamine
                          H4 receptor antagonists for
                          treatment of inflammation, in particular
                          allergic rhinitis
INVENTOR(S):              Dunford, Paul J.; Edwards, James P.; Karlsson, Lars;
                          Leung, Wai-ping; Thurmond, Robin L.; Wei, Jianmei
PATENT ASSIGNEE(S):       Janssen Pharmaceutica, N.V., Belg.
SOURCE:                   PCT Int. Appl., 109 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
     WO 2004022061      A1   20040318       WO 2003-US27990  20030905
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
             PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
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TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-408579P P 20020906
OTHER SOURCE(S): MARPAT 140:270732
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Preparation of indoles as **histamine H4 receptor** antagonists for treatment of **inflammation**, in particular allergic rhinitis

AB Title compds. I [wherein A = CH and derivs.; B = O or NH and derivs.; C = N, D = NR1 or S; R1 = Ra, -RbRa, -Rb-O-Ra, -Rb-NH2; Ra = H, CN, CONH2 and derivs., alk/en/yl, cycloalkyl, Ph, heterocyclyl; Rb = alk/en/ylene, cycloalkylene, bivalent heterocyclic radical, phenylene; R2', R3' = independently H, Me, Et, alkylated or arylated amino, carbamoyl, carboxy esters, etc.; E = (CHR5')n; R5', R6' = independently H, Me, Et; R4, R6 = independently H, F, Cl, Br, I, CO2H, OH, NO2, NH2, CN, alkoxy, alkyl; R5, R7 = independently H, F, Cl, Br, I, (C:O)H and derivs., OH, NO2, NH2 and derivs., CN, Ph, benzyl, alkoxy, alkyl; each of the above hydrocarbyl or heterocyclyl groups optionally substituted; n = 0-2; when n = 2, (CHR5')n=2 is -(CHR5'-CHR7')- where CHR5' is in between CHR6' and CHR7'; R7' = H, Me, Et; with provisos; and their pharmaceutical acceptable salts, esters and amides] were prepared as **histamine H4 receptor** antagonists for treatment of **inflammation**, in particular allergic rhinitis . Seventy-seven synthetic examples and five biol. examples are given. For example, II was prepared by acylation of 5-chloroindole-2-carboxylic acid with N-methylpiperazine in the presence of HATU/HOAT/DIPEA in DMF for 48 h at room temperature The Ki value of II was 5 nM against **histamine H4 receptor**. I inhibited the sodium urate crystals peritonitis in mice by 24%.

ST indole prepn **histamine H4 receptor** antagonist allergic rhinitis **inflammation**

IT Gout
Inflammation
(treatment; preparation of indoles as **histamine H4 receptor** antagonists for treatment of allergic rhinitis)

L6 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:220205 CAPLUS
DOCUMENT NUMBER: 140:270852
TITLE: Preparation of nitrogen containing heterocyclic compounds as compounds useful for in the treatment of histamine H4 receptor mediated diseases
INVENTOR(S): Carruthers, Nicholas I.; Dvorak, Curt A.; Edwards, James P.; Grice, Cheryl A.; Jablonowski, Jill A.; Ly, Kiev S.; Pio, Barbara A.; Shah, Chandravadan R.; Venable, Jennifer D.
PATENT ASSIGNEE(S): Janssen Pharmaceutica, N.V., Belg.
SOURCE: PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004022060	A2	20040318	WO 2003-US27461	20030904

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,

GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG

US 2004058934 A1 20040325 US 2003-655381 20030904
PRIORITY APPLN. INFO.: US 2002-408569P P 20020906
OTHER SOURCE(S): MARPAT 140:270852
IT Allergy
Allergy inhibitors
Antiasthmatics
Antihistamines
Antirheumatic agents
Antitumor agents
Asthma
Atherosclerosis
Autoimmune disease
Dermatitis
Drug delivery systems
Human
Immunodeficiency
Inflammation
Lymphatic system, disease
Multiple sclerosis
Neoplasm
Psoriasis
Rheumatoid arthritis
(preparation of carboxamide, thiocarboxamide or iminocarboxamide functionalized heterocyclic compds. as **histamine H4 receptor** antagonists)

L6 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:220164 CAPLUS
DOCUMENT NUMBER: 140:247611
TITLE: Identification of histamine H4 receptor modulators and uses thereof for the treatment of allergy and asthma
INVENTOR(S): Desai, Pragnya J.; Dunford, Paul J.; Hofstra, Claudia L.; Karlsson, Lars; Leung, Wai-ping; Ling, Ping; Thurmond, Robin L.
PATENT ASSIGNEE(S): Janssen Pharmaceutica, N.V., Belg.
SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004021999	A2	20040318	WO 2003-US27943	20030905

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG,
KZ, MD, RU, TJ
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,

GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: US 2002-408736P P 20020906
IT **Inflammation**
(allergic; identification of **histamine H4 receptor** modulators and uses thereof for treatment of allergy and asthma)

L6 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:284571 CAPLUS
DOCUMENT NUMBER: 140:302234
TITLE: Histamine-induced inhibition of leukotriene biosynthesis in human neutrophils: involvement of the H2 receptor and cAMP
AUTHOR(S): Flamand, Nicolas; Plante, Hendrick; Picard, Serge; Laviolette, Michel; Borgeat, Pierre
CORPORATE SOURCE: Centre de Recherche en Rhumatologie et Immunologie, Centre de Recherche du CHUQ and Faculte de Medecine, CHUL, Office T1-49, Universite Laval, Sainte-Foy, QC, G1V 4G2, Can.
SOURCE: British Journal of Pharmacology (2004), 141(4), 552-561
CODEN: BJPCBM; ISSN: 0007-1188
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
AB Histamine is generally regarded as a pro-inflammatory mediator in diseases such as allergy and asthma. A growing number of studies, however, suggest that this autacoid is also involved in the downregulation of human polymorphonuclear leukocyte (PMN) functions and inflammatory responses through activation of the Gs-coupled histamine H2 receptor. We report here that histamine inhibits thapsigargin- and ligand (PAF and fMLP)-induced leukotriene (LT) biosynthesis in human PMN in a dose-dependent manner. The suppressive effect of histamine on LT biosynthesis was abrogated by the histamine H2 receptor antagonists cimetidine, ranitidine, and tiotidine. In contrast, the **histamine** H1, H3, and **H4 receptor** antagonists used in this study were ineffective in counteracting the inhibitory effect of **histamine** on the biosynthesis of LT in activated human PMN. The inhibition of LT biosynthesis by histamine was characterized by decreased arachidonic acid release and 5-lipoxygenase translocation to the nuclear membrane. Incubation of PMN with the cAMP-dependent protein kinase (PKA) inhibitor N-[2-(p-bromocinnamylamino)ethyl]-5-isoquinoline-sulfonamide prevented the inhibitory effect of histamine on LT biosynthesis, suggesting an important role for PKA in this effect of histamine on LT biosynthesis in PMN. These data provide the first evidences that, similarly to adenosine and prostaglandin E2, histamine is a potent suppressor of LT biosynthesis, and support the concept that histamine may play a dual role in the regulation of **inflammation**.

L6 ANSWER 5 OF 10 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2004154811 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14722321
TITLE: A potent and selective histamine H4 receptor antagonist with anti-inflammatory properties.
AUTHOR: Thurmond Robin L; Desai Pragnya J; Dunford Paul J; Fung-Leung Wai-Ping; Hofstra Claudia L; Jiang Wen; Nguyen Steven; Riley Jason P; Sun Siquan; Williams Kacy N; Edwards James P; Karlsson Lars
CORPORATE SOURCE: Johnson & Johnson Pharmaceutical Research and Development, LLC, 3210 Merryfield Row, San Diego, CA 92121, USA.. rthurmon@prdus.jnj.com
SOURCE: Journal of pharmacology and experimental therapeutics,

(2004 Apr) 309 (1) 404-13.
Journal code: 0376362. ISSN: 0022-3565.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200405
ENTRY DATE: Entered STN: 20040330
Last Updated on STN: 20040505
Entered Medline: 20040504

AB . . . mediates its physiological function through binding to four known histamine receptors. Here, we describe the first selective antagonist of the **histamine H4 receptor**, the newest member of the **histamine receptor** family, and provide evidence that such antagonists have anti-inflammatory activity in vivo. 1-[(5-chloro-1H-indol-2-yl)carbonyl]-4-methylpiperazine (JNJ 7777120) has a K(i) of 4.5 nM versus the human **receptor** and a pA(2) of 8.1. It is equipotent against the human, mouse, and rat receptors. It exhibits at least 1000-fold. . . be mast cell-dependent, which suggests that the compound effect may be mediated by mast cells. These results indicate that the **histamine H4 receptor** plays a role in the inflammatory process. Selective H4 receptor antagonists like JNJ 7777120 may have the potential to be useful in treating **inflammation** in humans.

L6 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:551686 CAPLUS
DOCUMENT NUMBER: 139:79145
TITLE: The use of histamine H4 receptor antagonists for the treatment of inflammatory response
INVENTOR(S): Thurmond, Robin; Sun, Siquan; Karlsson, Lars
PATENT ASSIGNEE(S): Ortho-Mcneil Pharmaceutical, Inc., USA
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003057919	A2	20030717	WO 2002-US38308	20021202
WO 2003057919	A3	20031030		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003133931	A1	20030717	US 2001-36648	20011221

PRIORITY APPLN. INFO.: US 2001-36648 A 20011221

AB The invention discloses the use of **histamine H4 receptor** modulators for the prevention, treatment, induction, or other desired modulation of inflammatory responses, **inflammation**, or diseases and/or conditions that are modulated, affected, or caused by **inflammation** or inflammatory responses. The invention also discloses the use of **histamine H4 receptor** modulators for the prevention, treatment, induction, or other desired modulation of polymorphonuclear leukocyte responses, e.g. migration to a particular site, or diseases and/or conditions that are modulated,

affected or caused by polymorphonuclear leukocytes. The invention further discloses the use of **histamine H4 receptor** modulators for the prevention, treatment, induction, or other desired modulation of mast cell responses, e.g. degranulation, or diseases and/or conditions that are modulated, affected or caused by mast cells.

ST **histamine H4 receptor** antagonist **inflammation** treatment; polymorphonuclear leukocyte modulation **histamine H4 receptor** antagonist; mast cell modulation **histamine H4 receptor** antagonist

IT Anti-inflammatory agents
Antihistamines
Drug delivery systems
Drug screening
Inflammation
Mast cell
Polymorphonuclear leukocyte
Second messenger system
(**histamine H4 receptor** antagonists for treatment of inflammatory response, and **receptor** modulator identification method)

L6 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:874968 CAPLUS
DOCUMENT NUMBER: 139:364959
TITLE: Preparation of heterocyclic compounds for treatment of H4-mediated conditions
INVENTOR(S): Carruthers, Nicholas I.; Chai, Wenying; Dvorak, Curt A.; Edwards, James P.; Grice, Cheryl A.; Jablonowski, Jill A.; Karlsson, Lars; Khatuya, Haripada; Kreisberg, Jennifer D.; Kwok, Annette K.; Lovenberg, Timothy W.; Ly, Kiev S.; Pio, Barbara; Shah, Chandravadan R.; Sun, Siquan; Thurmond, Robin L.; Wei, Jianmei; Xiao, Wei
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 43 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003207893	A1	20031106	US 2002-94357	20020308

PRIORITY APPLN. INFO.: US 2002-94357 20020308
OTHER SOURCE(S): MARPAT 139:364959

AB Heterocyclic compds. [I; R1 = Ra, RaRb-, RaORb-, or (Rc)(Rd)N-Rb-; where Ra = H, cyano, (CO)N(Rc)(Rd), C(:NH)(NH2), C1-10 alkyl, C3-8 alkenyl, C3-8 cycloalkyl, C2-5 heterocyclic radical, Ph; Rb = C1-8 alkylene, C2-8 alkenylene, C3-8 cycloalkylene, bivalent C3-8 heterocyclic radical, or phenylene; Rc, Rd = independently H, C1-8 alkyl, C2-8 alkenyl, C3-8 cycloalkyl, Ph; R2', R3' = H, Me, Et, NRpRq, -CONRpRq, -CO2Rr, -CH2NRpRq, or CH2ORr; Rp, Rq, Rr = C1-6 alkyl, C3-6 cycloalkyl, Ph, (C3-6 cycloalkyl)(C1-2 alkylene), benzyl, phenethyl; or NpRq together form s 5-7 membered heterocyclic ring; R5', R6' = H, Me, Et; X4 = (un)substituted NH or S; X1 = CR3; R3 = F, Cl, Br, CHO, Rf, RfRg-, Rf-O-Rg-, (Rh)(Ri)NRg-; where Rf = H, C1-6 alkyl, C2-6 alkenyl, C3-6 cycloalkyl, Ph, etc.; Rg = C1-6 alkylene, C2-6 alkenylene, C3-6 cycloalkylene, bivalent C3-6 heterocyclic radical, or phenylene; Rh, Ri = each independently H, C1-6 alkyl, C2-6 alkenyl, C3-6 cycloalkyl, or phenyl; X2 = (un)substituted NH, O, provided that X2 is (un)substituted NH where X1 is N; Re = H, C1-6 alkyl; X3 = N; Z = O, S; R4, R6 = H, F, Cl, Br, iodo, CO2H, OH, NO2, cyano, C1-4 alkoxy, etc.; R5, R7 = H, F, Cl, Br, iodo, OH, nitro, (un)substituted NH2, cyano, Ph, OCH2Ph, C1-4 alkoxy, etc.; wherein n is 0, 1, or 2] or pharmaceutically acceptable salts, esters, or amides thereof

are prepared These compds. are **histamine H4** **receptor** antagonists and useful for the treatment of **histamine H4**-mediated conditions including inflammatory disorders, asthma, psoriasis, rheumatoid arthritis, ulcerative colitis, Crohn's disease, inflammatory bowel disease, multiple sclerosis, allergic disorders, autoimmune disease, lymphatic disorders, and immunodeficiency disorders. The inflammatory disorders include acute **inflammation**, allergic **inflammation**, and chronic **inflammation**. For example, (5-Chloro-1H-indol-2-yl)(4-methylpiperazin-1-yl)methanone at 10 mg/kg blocked 62% the peritonitis induced by zymosan.

IT **Inflammation**
(acute; preparation of heterocyclic compds. as **histamine** **H4 receptor** antagonists for treatment of **histamine H4**-mediated conditions)

IT **Inflammation**
(allergic; preparation of heterocyclic compds. as **histamine** **H4 receptor** antagonists for treatment of **histamine H4**-mediated conditions)

IT **Inflammation**
(chronic; preparation of heterocyclic compds. as **histamine** **H4 receptor** antagonists for treatment of **histamine H4**-mediated conditions)

IT Allergy
Allergy inhibitors
Anti-inflammatory agents
Antiarthritics
Antiasthmatics
Antirheumatic agents
Asthma
Autoimmune disease
Human
Immunodeficiency
Inflammation
Multiple sclerosis
Psoriasis
Rheumatoid arthritis
(preparation of heterocyclic compds. as **histamine H4** **receptor** antagonists for treatment of **histamine** **H4**-mediated conditions)

L6 ANSWER 8 OF 10 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 2

ACCESSION NUMBER: 2004035491 EMBASE
TITLE: Influence of Rhinovirus on expression of histamine receptors mRNA in peripheral blood lymphocytes of asthmatic and nonasthmatic subjects.
AUTHOR: Zak-Nejmark T.; Kraus-Filarska M.; Malolepszy J.; Cembrzynska-Nowak M.; Dobosz T.; Filarski J.; Nadobna G.
CORPORATE SOURCE: M. Kraus-Filarska, Dept. of Int. Med. and Allergology, Medical University, Traugutta 57/59, 50-417 Wroclaw, Poland. filarska@pwr.wroc.pl
SOURCE: International Review of Allergology and Clinical Immunology, (2003) 9/4 (171-175).
Refs: 33
ISSN: 1232-9142 CODEN: IRAIFY
COUNTRY: Poland
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
005 General Pathology and Pathological Anatomy
015 Chest Diseases, Thoracic Surgery and Tuberculosis
026 Immunology, Serology and Transplantation
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English; Polish

AB Rhinoviral infections of respiratory tract are the main factor in asthma exacerbation. Pathophysiological action of **histamine** is very similar to clinical symptoms of viral infection; this suggest that the mediator might be involved in the process of **inflammation**. The influence of in vitro infection with human rhinovirus serotype 16 (6 x 10(3) TCID (50)/ml) on expression of four known **histamine receptors** mRNA in lymphocytes of 10 asthmatic and 8 nonasthmatic subjects was studied. Reverse transcriptase polymerase chain reaction was performed. Primers were labelled with fluorescent dyes H1, H2, H3 and **H4**. Intensity of fluorescence was expressed as relative fluorescence units. Data were analysed using ABI Prism 310 GeneScan collection software version 3.1. It was observed in infected cells of both groups the nonsignificant increase in expression of **histamine** H1 and H3 **receptors** mRNA and significant ($p<0.01$) increase of **histamine** H2 **receptor** mRNA in asthmatics. Expression of **histamine H4 receptor** mRNA was slightly decreased in lymphocytes of both groups. Increase of H2R mRNA expression may enhance a suppression of an. . .

L6 ANSWER 9 OF 10 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2002740119 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12503632
TITLE: Identification of a histamine H4 receptor on human eosinophils--role in eosinophil chemotaxis.
AUTHOR: O'Reilly Mark; Alpert Robbin; Jenkinson Stephen; Gladue Ronald P; Foo Shane; Trim Steven; Peter Beate; Trevethick Mike; Fidock Mark
CORPORATE SOURCE: Department of Genetic Technologies and Allergy Respiratory Biology, Pfizer Global Research Development, Ramsgate Road, Sandwich, Kent, UK.. mark_oreilly@sandwich.pfizer.com
SOURCE: Journal of receptor and signal transduction research, (2002 Feb-Nov) 22 (1-4) 431-48.
Journal code: 9509432. ISSN: 1079-9893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200306
ENTRY DATE: Entered STN: 20021231
Last Updated on STN: 20030606
Entered Medline: 20030605

AB Eosinophils are recruited to sites of **inflammation** via the action of a number of chemical mediators, including PAF, leukotrienes, eotaxins, ECF-A and histamine. Although many of the. . . ligand-binding assay (histamine > clobenpropit > iodophenpropit > thioperamide > R-alpha-methylhistamine > cimetidine > pyrilamine). We have therefore termed this **receptor** human **histamine H4**. Chemotaxis studies on isolated human eosinophils have confirmed that histamine is chemotactic and that agonists of the known histamine receptors. . . only by the H3 antagonists clobenpropit and thioperamide. Since these compounds are also antagonists of hH4 we postulate that the **receptor** mediating histaminergic chemotaxis is this novel **histamine H4 receptor**.

L6 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:411245 CAPLUS
DOCUMENT NUMBER: 136:129704
TITLE: Structure and expression of the human histamine H4-receptor gene
AUTHOR(S): Coge, Francis; Guenin, Sophie-Penelope; Rique, Herve; Boutin, Jean A.; Galizzi, Jean-Pierre
CORPORATE SOURCE: Division de Pharmacologie Moleculaire et Cellulaire, Institut de Recherches Servier, Croissy sur Seine, 78 290, Fr.

SOURCE: Biochemical and Biophysical Research Communications (2001), 284(2), 301-309
CODEN: BBRCA9; ISSN: 0006-291X
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT **Inflammation**
(and **H4-receptor** expression; structure and expression of human **histamine H4-receptor** gene)

=> s (histamine (s) receptor (s) h4) (p) leukocyte
L7 19 (HISTAMINE (S) RECEPTOR (S) H4) (P) LEUKOCYTE

=> dup rem l7
PROCESSING COMPLETED FOR L7
L8 12 DUP REM L7 (7 DUPLICATES REMOVED)

=> d l8 total ibib kwic

L8 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:284571 CAPLUS
DOCUMENT NUMBER: 140:302234
TITLE: Histamine-induced inhibition of leukotriene biosynthesis in human neutrophils: involvement of the H2 receptor and cAMP
AUTHOR(S): Flamand, Nicolas; Plante, Hendrick; Picard, Serge; Laviolette, Michel; Borgeat, Pierre
CORPORATE SOURCE: Centre de Recherche en Rhumatologie et Immunologie, Centre de Recherche du CHUQ and Faculte de Medecine, CHUL, Office T1-49, Universite Laval, Sainte-Foy, QC, G1V 4G2, Can.
SOURCE: British Journal of Pharmacology (2004), 141(4), 552-561
CODEN: BJPCBM; ISSN: 0007-1188
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Histamine is generally regarded as a pro-inflammatory mediator in diseases such as allergy and asthma. A growing number of studies, however, suggest that this autacoid is also involved in the downregulation of human polymorphonuclear **leukocyte** (PMN) functions and inflammatory responses through activation of the Gs-coupled histamine H2 receptor. We report here that histamine inhibits thapsigargin- and ligand (PAF and fMLP)-induced leukotriene (LT) biosynthesis in human PMN in a dose-dependent manner. The suppressive effect of histamine on LT biosynthesis was abrogated by the histamine H2 receptor antagonists cimetidine, ranitidine, and tiotidine. In contrast, the **histamine** H1, H3, and **H4 receptor** antagonists used in this study were ineffective in counteracting the inhibitory effect of **histamine** on the biosynthesis of LT in activated human PMN. The inhibition of LT biosynthesis by histamine was characterized by decreased arachidonic acid release and 5-lipoxygenase translocation to the nuclear membrane. Incubation of PMN with the cAMP-dependent protein kinase (PKA) inhibitor N-[2-(p-bromocinnamylamino)ethyl]-5-isoquinoline-sulfonamide prevented the inhibitory effect of histamine on LT biosynthesis, suggesting an important role for PKA in this effect of histamine on LT biosynthesis in PMN. These data provide the first evidences that, similarly to adenosine and prostaglandin E2, histamine is a potent

suppressor of LT biosynthesis, and support the concept that histamine may play a dual role in the regulation of inflammation.

L8 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:551686 CAPLUS
DOCUMENT NUMBER: 139:79145
TITLE: The use of histamine H4 receptor antagonists for the treatment of inflammatory response
INVENTOR(S): Thurmond, Robin; Sun, Siquan; Karlsson, Lars
PATENT ASSIGNEE(S): Ortho-Mcneil Pharmaceutical, Inc., USA
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003057919	A2	20030717	WO 2002-US38308	20021202
WO 2003057919	A3	20031030		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003133931	A1	20030717	US 2001-36648	20011221

PRIORITY APPLN. INFO.: US 2001-36648 A 20011221

AB The invention discloses the use of **histamine H4 receptor** modulators for the prevention, treatment, induction, or other desired modulation of inflammatory responses, inflammation, or diseases and/or conditions that are modulated, affected, or caused by inflammation or inflammatory responses. The invention also discloses the use of **histamine H4 receptor** modulators for the prevention, treatment, induction, or other desired modulation of polymorphonuclear **leukocyte** responses, e.g. migration to a particular site, or diseases and/or conditions that are modulated, affected or caused by polymorphonuclear **leukocytes**. The invention further discloses the use of **histamine H4 receptor** modulators for the prevention, treatment, induction, or other desired modulation of mast cell responses, e.g. degranulation, or diseases and/or conditions that are modulated, affected or caused by mast cells.

ST **histamine H4 receptor** antagonist inflammation treatment; polymorphonuclear **leukocyte** modulation **histamine H4 receptor** antagonist; mast cell modulation **histamine H4 receptor** antagonist

IT **Leukocyte**
Mast cell
(activation; **histamine H4 receptor** antagonists for treatment of inflammatory response, and **receptor** modulator identification method)

IT Anti-inflammatory agents
Antihistamines
Drug delivery systems
Drug screening
Inflammation
Mast cell
Polymorphonuclear **leukocyte**

Second messenger system
(**histamine H4 receptor** antagonists for treatment of inflammatory response, and **receptor** modulator identification method)

IT Cell activation
(**leukocyte**; **histamine H4 receptor** antagonists for treatment of inflammatory response, and **receptor** modulator identification method)

L8 ANSWER 3 OF 12 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2003569756 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14551291
TITLE: Critical role of histamine H4 receptor in leukotriene B4 production and mast cell-dependent neutrophil recruitment induced by zymosan in vivo.
AUTHOR: Takeshita Keisuke; Sakai Katsuya; Bacon Kevin B; Gantner Florian
CORPORATE SOURCE: Bayer Yakuhin, Ltd., Research Center Kyoto, Respiratory Diseases Research, 6-5-1-3 Kunimidai, Kizu-cho, Soraku-gun, 619-0216 Kyoto, Japan.
SOURCE: Journal of pharmacology and experimental therapeutics, (2003 Dec) 307 (3) 1072-8.
Journal code: 0376362. ISSN: 0022-3565.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200401
ENTRY DATE: Entered STN: 20031216
Last Updated on STN: 20040130
Entered Medline: 20040129
AB The recently identified **histamine receptor, H4** , was shown to be primarily expressed on **leukocytes** and has been implicated in the activation of lymphocytes, eosinophils, and mast cells in vitro. Its function in vivo, however,. . .

L8 ANSWER 4 OF 12 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2002740119 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12503632
TITLE: Identification of a histamine H4 receptor on human eosinophils--role in eosinophil chemotaxis.
AUTHOR: O'Reilly Mark; Alpert Robbin; Jenkinson Stephen; Gladue Ronald P; Foo Shane; Trim Steven; Peter Beate; Trevethick Mike; Fidock Mark
CORPORATE SOURCE: Department of Genetic Technologies and Allergy Respiratory Biology, Pfizer Global Research Development, Ramsgate Road, Sandwich, Kent, UK.. mark_oreilly@sandwich.pfizer.com
SOURCE: Journal of receptor and signal transduction research, (2002 Feb-Nov) 22 (1-4) 431-48.
Journal code: 9509432. ISSN: 1079-9893.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200306
ENTRY DATE: Entered STN: 20021231
Last Updated on STN: 20030606
Entered Medline: 20030605
AB . . . receptor, both at the sequence and gene structure level. Expression data indicates that Pfi-013 is predominantly expressed in peripheral blood **leukocytes**, with lower expression levels in spleen, testis and colon. Ligand-binding studies using Pfi-013 expressed in HEK-293Galpha15 cells, demonstrates specific binding. . . ligand-binding assay (histamine > clobenpropit > iodophenpropit >

thioperamide > R-alpha-methylhistamine > cimetidine > pyrilamine). We have therefore termed this **receptor** human **histamine H4**. Chemotaxis studies on isolated human eosinophils have confirmed that histamine is chemotactic and that agonists of the known histamine receptors. . . only by the H3 antagonists clobenpropit and thioperamide. Since these compounds are also antagonists of hH4 we postulate that the **receptor** mediating histaminergic chemotaxis is this novel **histamine H4 receptor**.

L8 ANSWER 5 OF 12 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 3
ACCESSION NUMBER: 2002:585697 BIOSIS
DOCUMENT NUMBER: PREV200200585697
TITLE: Histamine H4 and H2 receptors control histamine-induced interleukin-16 release from human CD8+ T cells.
AUTHOR(S): Gantner, Florian [Reprint author]; Sakai, Katsuya; Tusche, Michael W.; Cruikshank, William W.; Center, David M.; Bacon, Kevin B.
CORPORATE SOURCE: Research Center Kyoto, TRA Asthma, Bayer Yakuhin, Ltd., 6-5-1-3 Kunimidai, Kizu-cho, Soraku-gun, 619-0216, Kyoto, Japan
florian.gantner.fg@bayer.co.jp
SOURCE: Journal of Pharmacology and Experimental Therapeutics, (October, 2002) Vol. 303, No. 1, pp. 300-307. print.
CODEN: JPETAB. ISSN: 0022-3565.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 13 Nov 2002
Last Updated on STN: 13 Nov 2002
AB. . . known to trigger the release of interleukin (IL)-16 from human CD8+ cells. However, the individual roles of the presently known **histamine receptor** subtypes (H1-**H4**) in this inflammatory response have not been fully characterized. **Histamine** stimulation of human CD8+ T lymphocytes purified from peripheral blood led to a 5- to 8-fold increase in the basal. . . h, and this increase was significantly blocked by the H2-selective antagonist, cimetidine, or by thioperamide, an antagonist of H3 and **H4 receptors**, respectively. The H1 antagonist pyrilamine showed limited effects. Agonists selective for H2 (dimaprit), H3/4 (R-(-)-alpha-methylhistamine), and H4 (clobenpropit) were capable. . . RNA expression studies confirmed H4, H2, and H1 expression in human CD8+ lymphocytes, whereas H3 mRNA was completely absent. All **leukocyte** populations investigated expressed mRNA for H4, with highest levels found in eosinophils, dendritic cells, and tonsil B cells. H4 expression. . .

L8 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:833372 CAPLUS
DOCUMENT NUMBER: 135:367740
TITLE: Human histamine H4 receptor, protein and cDNA sequences, tissue distribution and uses in identifying antagonists and agonists
INVENTOR(S): Jones, Philip G.; Blatcher, Maria; Wu, Shujian; Pausch, Mark H.
PATENT ASSIGNEE(S): American Home Products Corporation, USA
SOURCE: PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2001085786 A2 20011115 WO 2001-US14527 20010504
WO 2001085786 A3 20020418
WO 2001085786 C2 20021212
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: US 2000-202151P P 20000505
US 2000-227567P P 20000823
US 2000-247855P P 20001113

IT **Leukocyte**
(highly expressed in; human **histamine H4 receptor**, protein and cDNA sequences, tissue distribution and uses in identifying antagonists and agonists)

L8 ANSWER 7 OF 12 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 2002:2668 BIOSIS
DOCUMENT NUMBER: PREV200200002668
TITLE: Cloning and expression of isoforms of the human H4 histamine receptor.
AUTHOR(S): Gallagher, M. J. [Reprint author]; Yates, S. L. [Reprint author]; Tedford, C. E. [Reprint author]
CORPORATE SOURCE: Discovery Research, Gliatech Inc., Cleveland, OH, USA
SOURCE: Society for Neuroscience Abstracts, (2001) Vol. 27, No. 2, pp. 2122. print.
Meeting Info.: 31st Annual Meeting of the Society for Neuroscience. San Diego, California, USA. November 10-15, 2001.
ISSN: 0190-5295.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 28 Dec 2001
Last Updated on STN: 25 Feb 2002
AB The **H4 histamine receptor** is a G-protein-coupled **receptor** (GPCR) that has recently been discovered. Unlike the H3 receptor, which is expressed primarily in the CNS, the expression of H4 appears to be **leukocyte** specific. The **H4 receptor** is believed to respond to **histamine** levels affecting neutrophils and eosinophils in lymphoid tissues. H4 receptors share only a 43% nucleotide homology with their closest known. . .

L8 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:485923 CAPLUS
DOCUMENT NUMBER: 137:211212
TITLE: Molecular cloning and characterization of a new subtype of histamine receptor, H4
AUTHOR(S): Nakamura, Takao; Itadani, Hiraku; Hidaka, Yusuke; Ohta, Masataka; Tanaka, Kenichi
CORPORATE SOURCE: Tsukuba Research Institute, Banyu Pharmaceutical Co., Ltd., Tsukuba, 300-2611, Japan
SOURCE: International Congress Series (2001), 1224(Histamine Research in the New Millennium), 383-384
CODEN: EXMDA4; ISSN: 0531-5131
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **Leukocyte**

(mol. cloning and characterization of a new subtype of human **histamine receptor, H4** expressed in **leukocytes** and other peripheral tissues)

IT Animal tissue
(peripheral; mol. cloning and characterization of a new subtype of human **histamine receptor, H4** expressed in **leukocytes** and other peripheral tissues)

L8 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:411245 CAPLUS
DOCUMENT NUMBER: 136:129704
TITLE: Structure and expression of the human histamine H4-receptor gene
AUTHOR(S): Coge, Francis; Guenin, Sophie-Penelope; Rique, Herve; Boutin, Jean A.; Galizzi, Jean-Pierre
CORPORATE SOURCE: Division de Pharmacologie Moleculaire et Cellulaire, Institut de Recherches Servier, Croissy sur Seine, 78 290, Fr.
SOURCE: Biochemical and Biophysical Research Communications (2001), 284(2), 301-309
CODEN: BBRCA9; ISSN: 0006-291X
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT **Leukocyte**
Liver
Lung
Spleen
(**H4-receptor** mRNA expressed in; structure and expression of human **histamine H4-receptor** gene)

L8 ANSWER 10 OF 12 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 2001450827 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11496825
TITLE: Identification and characterization of histamine H4 receptor.
AUTHOR: Oda T; Matsumoto S
CORPORATE SOURCE: Institute for Drug Discovery Research, Yamanouchi Pharmaceutical Co., Ltd., 21 Miyukigaoka, Tsukuba, Ibaraki 305-8585, Japan.
SOURCE: Nippon yakurigaku zasshi. Japanese journal of pharmacology, (2001 Jul) 118 (1) 36-42. Ref: 16
Journal code: 0420550. ISSN: 0015-5691.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: Japanese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200112
ENTRY DATE: Entered STN: 20010813
Last Updated on STN: 20020121
Entered Medline: 20011205

AB Recently, we and other groups have identified cDNA encoding the novel **histamine H4 receptor**. All of the groups have initially found a clue for the H4 receptor-nucleotides sequence in the human draft genomic DNA. . . database. The primary structure of H4 receptor reveals the highest homology with H3 receptor among known G-protein coupled receptors (37.4%). **H4 receptor** binds to **histamine** with high affinity, which results in the down-regulation of intracellular cAMP level. **H4**

receptor is activated not only by **histamine**, but also R-(alpha)-methylhistamine (H3 **receptor** agonist), clobenpropit (H3 **receptor** antagonist), clozapine (neuroleptic) and other histaminergic compounds, while it is antagonized by thioperamide (H3 **receptor** antagonist). The H4 receptor is localized in the peripheral blood **leukocytes**, spleen, thymus, small intestine, colon, bone marrow and so on. The tissue distribution of the **H4 receptor** and known physiological function of **histamine** tempts us to speculate about its function as an immune modulator. Although there needs much additional work on characterization of the **H4 receptor**, the discovery of this **receptor** subtype will unveil a new phase for determining the physiological role of **histamine**.

L8 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:871605 CAPLUS
DOCUMENT NUMBER: 134:51521
TITLE: Molecular cloning and characterization of a novel type of histamine receptor preferentially expressed in leukocytes
AUTHOR(S): Oda, Tamaki; Morikawa, Noriyuki; Saito, Yoko; Masuho, Yasuhiko; Matsumoto, Shun-Ichiro
CORPORATE SOURCE: Helix Research Institute, Inc., Kisarazu, 292-0812, Japan
SOURCE: Journal of Biological Chemistry (2000), 275(47), 36781-36786
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT **Histamine receptors**
RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); PRP (Properties); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PROC (Process)
(**H4**; mol. cloning and pharmacol. characterization of novel type of **histamine receptor** preferentially expressed in human **leukocytes**)

L8 ANSWER 12 OF 12 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
ACCESSION NUMBER: 90124272 EMBASE
DOCUMENT NUMBER: 1990124272
TITLE: Substance P induces the expression of an endothelial-leukocyte adhesion molecule by microvascular endothelium.
AUTHOR: Matis W.L.; Lavker R.M.; Murphy G.F.
CORPORATE SOURCE: Department of Dermatology, University of Pennsylvania, Philadelphia, PA, United States
SOURCE: Journal of Investigative Dermatology, (1990) 94/4 (492-495).
ISSN: 0022-202X CODEN: JIDEAE
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 005 General Pathology and Pathological Anatomy
013 Dermatology and Venereology
026 Immunology, Serology and Transplantation
LANGUAGE: English
SUMMARY LANGUAGE: English
AB **Leukocyte** trafficking in normal and diseased skin appears to be initially governed by endothelial surface glycoproteins that promote

adhesive interactions with circulating **leukocytes**. In a separate study, we have demonstrated that one of these glycoproteins, endothelial-**leukocyte** adhesion molecule-1 (ELAM-1), is rapidly induced on postcapillary dermal venules as a direct consequence of experimentally-elicited degranulation of adjacent mast. . . min to substance P or to a substance P analogue (D-pro4, D-trp7,9)SP(4-11) that binds to the identical mast cell surface **receptor** but which does not provoke **histamine** release. Dermal mast cells were uniformly degranulated only in explants exposed to substance P, as judged by ultrastructural analysis. After. . . for 6 h, superficial venules of explants exposed to substance P showed evidence of ELAM-1 induction, as documented histochemically using **H4**/18 monoclonal antibody. ELAM-1 was not induced by substance P analogue. Furthermore, preincubation of explants with analogue or with the mast. . . substance P endogenously released by dermal nerve fibres upon physiologic or electrical stimulation may be important in the regulation of endothelial-**leukocyte** interactions in vivo. This concept provides further evidence for a neurogenic and psychogenic modulation of the immune response, and may. . .

```
=> s (histamine (s) receptor (s) h4) (p) mast (p) cell
L9          17 (HISTAMINE (S) RECEPTOR (S) H4) (P) MAST (P) CELL

=> dup rem l9
PROCESSING COMPLETED FOR L9
L10          10 DUP REM L9 (7 DUPLICATES REMOVED)

=> d l10 total ibib kwic

L10  ANSWER 1 OF 10  CAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:         2004:220164  CAPLUS
DOCUMENT NUMBER:          140:247611
TITLE:                    Identification of histamine H4 receptor modulators and
                          uses thereof for the treatment of allergy and asthma
INVENTOR(S):              Desai, Pragnya J.; Dunford, Paul J.; Hofstra, Claudia
                          L.; Karlsson, Lars; Leung, Wai-ping; Ling, Ping;
                          Thurmond, Robin L.
PATENT ASSIGNEE(S):       Janssen Pharmaceutica, N.V., Belg.
SOURCE:                   PCT Int. Appl., 44 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
     WO 2004021999      A2   20040318       WO 2003-US27943  20030905
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PG,
             PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
             TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG,
             KZ, MD, RU, TJ
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
             NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
             GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.:                    US 2002-408736P  P  20020906
AB   Methods are disclosed for identifying histamine receptor
     modulators that affect mast cell or basophil
     chemotaxis, and the use of such histamine H4
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receptor modulators for the prevention, treatment, induction, or other desired modulation of asthma and/or allergic responses, or diseases and/or conditions that are modulated, affected or caused by asthma or allergic responses. Also disclosed is the use of **histamine H4 receptor** modulators for the prevention, treatment, induction, or other desired modulation of **mast cell** or basophil chemotactic responses, such as migration to a particular site, or diseases and/or conditions that are modulated, affected or caused by **mast cell** or basophil chemotaxis.

IT Trachea (anatomical)
(**H4 receptor**-modulated subepithelial **mast cell** accumulation; identification of **histamine H4 receptor** modulators and uses thereof for treatment of allergy and asthma)

IT Allergy
Allergy inhibitors
Antiasthmatics
Antihistamines
Asthma
Basophil
Chemotaxis
Drug screening
Human
Mast cell
(identification of **histamine H4 receptor** modulators and uses thereof for treatment of allergy and asthma)

IT 73903-17-0, (5-Chloro-1H-benzimidazol-2-yl)(4-methylpiperazin-1-yl)methanone 123216-04-6, (5-Chloro-1H-indol-2-yl)piperazin-1-ylmethanone 459168-45-7, (5,7-Difluoro-1H-indol-2-yl)(4-methylpiperazin-1-yl)methanone 459169-42-7, (7-Amino-1H-indol-2-yl)(4-methylpiperazin-1-yl)methanone 668480-27-1 669083-63-0, (5-Chloro-7-methyl-1H-indol-2-yl)(4-methylpiperazin-1-yl)methanone 669083-64-1, (5-Chloro-1H-benzimidazol-2-yl)piperazin-1-ylmethanone
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(binding affinity to **H4 receptor**, effect on **H4 receptor**-mediated **mast cell** chemotaxis; identification of **histamine H4 receptor** modulators and uses thereof for treatment of allergy and asthma)

L10 ANSWER 2 OF 10 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2004154811 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14722321
TITLE: A potent and selective histamine H4 receptor antagonist with anti-inflammatory properties.
AUTHOR: Thurmond Robin L; Desai Pragnya J; Dunford Paul J; Fung-Leung Wai-Ping; Hofstra Claudia L; Jiang Wen; Nguyen Steven; Riley Jason P; Sun Siquan; Williams Kacy N; Edwards James P; Karlsson Lars
CORPORATE SOURCE: Johnson & Johnson Pharmaceutical Research and Development, LLC, 3210 Merryfield Row, San Diego, CA 92121, USA.. rthurmon@prdus.jnj.com
SOURCE: Journal of pharmacology and experimental therapeutics, (2004 Apr) 309 (1) 404-13.
Journal code: 0376362. ISSN: 0022-3565.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200405
ENTRY DATE: Entered STN: 20040330
Last Updated on STN: 20040505
Entered Medline: 20040504

AB . . . mediates its physiological function through binding to four known

histamine receptors. Here, we describe the first selective antagonist of the **histamine H4 receptor**, the newest member of the **histamine receptor** family, and provide evidence that such antagonists have anti-inflammatory activity in vivo. 1-[(5-chloro-1H-indol-2-yl)carbonyl]-4-methylpiperazine (JNJ 7777120) has a K(i) of 4.5 nM versus the human **receptor** and a pA(2) of 8.1. It is equipotent against the human, mouse, and rat receptors. It exhibits at least 1000-fold. . . half-life of approximately 3 h in both species. JNJ 7777120 blocks histamine-induced chemotaxis and calcium influx in mouse bone marrow-derived **mast cells**. In addition, it can block the histamine-induced migration of tracheal **mast cells** from the connective tissue toward the epithelium in mice. JNJ 7777120 significantly blocks neutrophil infiltration in a mouse zymosan-induced peritonitis model. This model is reported to be **mast cell**-dependent, which suggests that the compound effect may be mediated by **mast cells**. These results indicate that the **histamine H4 receptor** plays a role in the inflammatory process. Selective H4 receptor antagonists like JNJ 7777120 may have the potential to be. . .

L10 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:418960 CAPLUS
TITLE: Histamine H4 receptor mediates eosinophil chemotaxis with cell shape change and adhesion molecule upregulation
AUTHOR(S): Ling, Ping; Ngo, Karen; Nguyen, Steven; Thurmond, Robin L.; Edwards, James P.; Karlsson, Lars; Fung-Leung, Wai-Ping
CORPORATE SOURCE: L.L.C., Johnson and Johnson Pharmaceutical Research and Development, 3210 Merryfield Row, San Diego, CA, 92121
SOURCE: British Journal of Pharmacology (2004), 142(1001), 161-171
CODEN: BJPCBM; ISSN: 0007-1188
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
AB 1: During **mast cell** degranulation, histamine is released in large quantities. Human eosinophils were found to express **histamine H4** but not H3 **receptors**. The possible effects of histamine on eosinophils and the receptor mediating these effects were investigated in our studies. 2: Histamine (0.01-30 μM) induced a rapid and transient **cell** shape change in human eosinophils, but had no effects on neutrophils. The maximal shape change was at 0.3 μM histamine with EC50 at 19 nM. After 60 min incubation with 1 μM histamine, eosinophils were desensitized and were refractory to shape change response upon histamine restimulation. **Histamine** (0.01-1 μM) also enhanced the eosinophil shape change induced by other chemokines. 3: **Histamine**-induced eosinophil shape change was mediated by the **H4 receptor**. This effect was completely inhibited by H4 receptor-specific antagonist JNJ 7777120 (IC50 0.3 μM) and H3/H4 receptor antagonist thioperamide (IC50 1.4 μM), but not by selective H1, H2 or H3 receptor antagonists. **H4 receptor** agonists imetit (EC50 25 nM) and clobenpropit (EC50 72 nM) could mimic **histamine** effect in inducing eosinophil shape change. 4: **Histamine** (0.01-100 μM) induced upregulation of adhesion mols. CD11b/CD18 (Mac-1) and CD54 (ICAM-1) on eosinophils. This effect was mediated by the **H4 receptor** and could be blocked by **H4 receptor** antagonists JNJ 7777120 and thioperamide. 5: **Histamine** (0.01-10 μM) induced eosinophil chemotaxis with an EC50 of 83 nM. This effect was mediated by the H4 receptor and could be blocked by H4 receptor antagonists JNJ 7777120 (IC50 86 nM) and thioperamide (IC50 519 nM). Histamine (0.5 μM) also enhanced the eosinophil shape change induced by other chemokines. 6: In

conclusion, we have demonstrated a new mechanism of eosinophil recruitment driven by **mast cells** via the release of histamine. Using specific **histamine receptor** ligands, we have provided a definitive proof that the **H4 receptor** mediates eosinophil chemotaxis, **cell** shape change and upregulation of adhesion mols. The effect of H4 receptor antagonists in blocking eosinophil infiltration could be valuable for the treatment of allergic diseases. The **histamine**-induced shape change and upregulation of adhesion mols. on eosinophils can serve as biomarkers for clin. studies of **H4 receptor** antagonists.British Journal of Pharmacol. (2004) 142, 161-171.

L10 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:551686 CAPLUS
DOCUMENT NUMBER: 139:79145
TITLE: The use of histamine H4 receptor antagonists for the treatment of inflammatory response
INVENTOR(S): Thurmond, Robin; Sun, Siquan; Karlsson, Lars
PATENT ASSIGNEE(S): Ortho-Mcneil Pharmaceutical, Inc., USA
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003057919	A2	20030717	WO 2002-US38308	20021202
WO 2003057919	A3	20031030		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003133931	A1	20030717	US 2001-36648	20011221

PRIORITY APPLN. INFO.: US 2001-36648 A 20011221

AB The invention discloses the use of **histamine H4 receptor** modulators for the prevention, treatment, induction, or other desired modulation of inflammatory responses, inflammation, or diseases and/or conditions that are modulated, affected, or caused by inflammation or inflammatory responses. The invention also discloses the use of **histamine H4 receptor** modulators for the prevention, treatment, induction, or other desired modulation of polymorphonuclear leukocyte responses, e.g. migration to a particular site, or diseases and/or conditions that are modulated, affected or caused by polymorphonuclear leukocytes. The invention further discloses the use of **histamine H4 receptor** modulators for the prevention, treatment, induction, or other desired modulation of **mast cell** responses, e.g. degranulation, or diseases and/or conditions that are modulated, affected or caused by **mast cells**.

ST **histamine H4 receptor** antagonist inflammation treatment; polymorphonuclear leukocyte modulation **histamine H4 receptor** antagonist; **mast cell** modulation **histamine H4 receptor** antagonist

IT Leukocyte
Mast cell

(activation; **histamine H4 receptor** antagonists for treatment of inflammatory response, and **receptor** modulator identification method)

IT Anti-inflammatory agents
Antihistamines
Drug delivery systems
Drug screening
Inflammation
Mast cell
Polymorphonuclear leukocyte
Second messenger system
(**histamine H4 receptor** antagonists for treatment of inflammatory response, and **receptor** modulator identification method)

IT **Cell** activation
(**mast cell**; **histamine H4 receptor** antagonists for treatment of inflammatory response, and **receptor** modulator identification method)

L10 ANSWER 5 OF 10 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2003234093 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12626656
TITLE: **Histamine H4 receptor** mediates chemotaxis and calcium mobilization of **mast cells**.
AUTHOR: Hofstra Claudia L; Desai Pragnya J; Thurmond Robin L; Fung-Leung Wai-Ping
CORPORATE SOURCE: Johnson and Johnson Pharmaceutical Research and Development LLC, 3210 Merryfield Row, San Diego, CA 92121, USA.
SOURCE: Journal of pharmacology and experimental therapeutics, (2003 Jun) 305 (3) 1212-21.
Journal code: 0376362. ISSN: 0022-3565.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200307
ENTRY DATE: Entered STN: 20030521
Last Updated on STN: 20030708
Entered Medline: 20030707

TI **Histamine H4 receptor** mediates chemotaxis and calcium mobilization of **mast cells**.

AB The diverse physiological functions of histamine are mediated through distinct histamine receptors. **Mast cells** are major producers of histamine, yet effects of histamine on **mast cells** are currently unclear. The present study shows that histamine induces chemotaxis of mouse **mast cells**, without affecting **mast cell** degranulation. **Mast cell** chemotaxis toward **histamine** could be blocked by the dual H3/**H4 receptor** antagonist thioperamide, but not by H1 or H2 **receptor** antagonists. This chemotactic response is mediated by the **H4 receptor**, because chemotaxis toward **histamine** was absent in **mast cells** derived from **H4 receptor**-deficient mice but was detected in H3 **receptor**-deficient **mast cells**. In addition, Northern blot analysis showed the expression of H4 but not H3 receptors on **mast cells**. Activation of **H4 receptors** by **histamine** resulted in calcium mobilization from intracellular calcium stores. Both G alpha i/o proteins and phospholipase C (PLC) are involved in histamine-induced calcium mobilization and chemotaxis in **mast cells**, because these responses were completely inhibited by pertussis toxin and PLC inhibitor 1-[6-[[17 beta-3-methoxyestra-1,3,5 (10)-trien-17-yl]amino]hexyl]-1H-pyrrole-2,5-dione (U73122). In summary,

histamine was shown to mediate signaling and chemotaxis of **mast cells** via the **H4 receptor**. This mechanism might be responsible for **mast cell** accumulation in allergic tissues.

L10 ANSWER 6 OF 10 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2003569756 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14551291
TITLE: Critical role of **histamine H4 receptor** in leukotriene B4 production and **mast cell**-dependent neutrophil recruitment induced by zymosan in vivo.
AUTHOR: Takeshita Keisuke; Sakai Katsuya; Bacon Kevin B; Gantner Florian
CORPORATE SOURCE: Bayer Yakuhin, Ltd., Research Center Kyoto, Respiratory Diseases Research, 6-5-1-3 Kunimidai, Kizu-cho, Soraku-gun, 619-0216 Kyoto, Japan.
SOURCE: Journal of pharmacology and experimental therapeutics, (2003 Dec) 307 (3) 1072-8.
Journal code: 0376362. ISSN: 0022-3565.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200401
ENTRY DATE: Entered STN: 20031216
Last Updated on STN: 20040130
Entered Medline: 20040129

TI Critical role of **histamine H4 receptor** in leukotriene B4 production and **mast cell**-dependent neutrophil recruitment induced by zymosan in vivo.

AB The recently identified **histamine receptor, H4** , was shown to be primarily expressed on leukocytes and has been implicated in the activation of lymphocytes, eosinophils, and **mast cells** in vitro. Its function in vivo, however, has not yet been characterized. We present evidence for a critical role of H4 receptor in the **mast cell**-dependent recruitment of neutrophils. Mice injected with zymosan into the pleural cavity developed massive neutrophilia within hours after challenge. Neutrophilia was. . . a 70 to 80% reduction in neutrophils in the pleural cavity compared with wild-type animals was noted in mice lacking **mast cells** (W/W(v) mice); mice deficient in MyD88 (MyD88(-/-)); a critical component of the signaling cascade of the major receptor for zymosan,. . . receptor 2 (TLR2); or in mice pretreated with a functionally antagonistic anti-TLR2 antibody. The residual 20% neutrophil infiltration seen in **mast cell**-deficient and MyD88(-/-) mice was not further reduced by thioperamide. Neutrophilia was completely restored by transferring wild-type bone marrow-derived **mast cells** into MyD88(-/-) or W/W(v) mice. Interestingly, when neutrophilia was evoked by carrageenan injection, **mast cell** depletion and thioperamide had no effect. Various inflammatory mediators were detectable in the pleural cavity of zymosan-challenged mice. Upon pretreatment. . .

L10 ANSWER 7 OF 10 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 4
ACCESSION NUMBER: 2003:553528 BIOSIS
DOCUMENT NUMBER: PREV200300557879
TITLE: Interaction of astemizole, an H1 receptor antagonist, with conventional antiepileptic drugs in mice.
AUTHOR(S): Swiader, Mariusz; Wielosz, Marian; Czuczwar, Stanislaw J. [Reprint Author]
CORPORATE SOURCE: Department of Pathophysiology, Medical University, Jaczewskiego 8, 20-090, Lublin, Poland

czuczwar@galen.imw.lublin.pl
SOURCE: Pharmacology Biochemistry and Behavior, (August 2003) Vol. 76, No. 1, pp. 169-178. print.
ISSN: 0091-3057 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 26 Nov 2003
Last Updated on STN: 26 Nov 2003
AB. . . aminergic neurotransmitters, playing an important role in the regulation of a number of physiological processes. There are several subtypes of **histamine receptors**-H1, H2, H3 and the recently discovered **H4**. H1 receptors exist on **mast cells**, basophils, enterochromaffin **cells** and in the central nervous system, being located postsynaptically. H1 receptor antagonists, including classical antiallergy drugs, occasionally have been expected. . .

L10 ANSWER 8 OF 10 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 2003:566836 BIOSIS
DOCUMENT NUMBER: PREV200300563865
TITLE: **Histamine H4 receptor** mediates chemotaxis of **mast cells** and eosinophils.
AUTHOR(S): Ling, P. [Reprint Author]; Hofstra, C. [Reprint Author]; Ngo, K. [Reprint Author]; Desai, P. [Reprint Author]; Thurmond, R. [Reprint Author]; Karlsson, L. [Reprint Author]; Fung-Leung, W.-P. [Reprint Author]
CORPORATE SOURCE: J and J Pharmaceutical R and D, 3210 Merryfield Row, San Diego, CA, 92121, USA
SOURCE: Inflammation Research, (July 2003) Vol. 52, No. Supplement 2, pp. S 88. print.
Meeting Info.: 6th World Congress on Inflammation. Vancouver, British Columbia, Canada. August 02-06, 2003. International Association of Inflammation Societies.
ISSN: 1023-3830.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 3 Dec 2003
Last Updated on STN: 3 Dec 2003
TI **Histamine H4 receptor** mediates chemotaxis of **mast cells** and eosinophils.

L10 ANSWER 9 OF 10 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 5
ACCESSION NUMBER: 2002:298317 BIOSIS
DOCUMENT NUMBER: PREV200200298317
TITLE: Trends in histamine research: New functions during immune responses and hematopoiesis.
AUTHOR(S): Schneider, Elke [Reprint author]; Rolli-Derkinderen, Malvyne [Reprint author]; Arock, Michel [Reprint author]; Dy, Michel [Reprint author]
CORPORATE SOURCE: CNRS UMR 8603-Universite Rene Descartes-Paris V, Hopital Necker, 161 Rue de Sevres, 75743, Paris Cedex 15, France
dy@necker.fr
SOURCE: Trends in Immunology, (May, 2002) Vol. 23, No. 5, pp. 255-263. print.
ISSN: 1471-4906.
DOCUMENT TYPE: Article
General Review; (Literature Review)
LANGUAGE: English
ENTRY DATE: Entered STN: 22 May 2002
Last Updated on STN: 22 May 2002
AB. . . in a more subtle way by modulating the T helper 1 (Th1)-Th2 balance

and possibly hematopoiesis. The histamine required for Th-**cell** polarization is provided by **mast cell** or basophil degranulation, as well as being newly synthesized and immediately released by other hematopoietic **cells**, in response to molecules generated during the immune response. Its global effect depends on the subtype and distribution of histamine receptors on target **cells**. The recent discovery of a novel **H4 receptor**, which is expressed preferentially on immunocompetent **cells**, will have important consequences for the understanding of the regulatory functions of **histamine** during the immune response.

L10 ANSWER 10 OF 10 EMBASE
on STN

ACCESSION NUMBER: 90124272 EMBASE
DOCUMENT NUMBER: 1990124272
TITLE: Substance P induces the expression of an endothelial-leukocyte adhesion molecule by microvascular endothelium.
AUTHOR: Matis W.L.; Lavker R.M.; Murphy G.F.
CORPORATE SOURCE: Department of Dermatology, University of Pennsylvania, Philadelphia, PA, United States
SOURCE: Journal of Investigative Dermatology, (1990) 94/4 (492-495).
ISSN: 0022-202X CODEN: JIDEAE
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 005 General Pathology and Pathological Anatomy
013 Dermatology and Venereology
026 Immunology, Serology and Transplantation
LANGUAGE: English
SUMMARY LANGUAGE: English
AB . . . endothelial-leukocyte adhesion molecule-1 (ELAM-1), is rapidly induced on postcapillary dermal venules as a direct consequence of experimentally-elicited degranulation of adjacent **mast cells** (Proc Natl Acad Sci USA 86:8972-8976, 1989). A principle endogenous mediator of **mast cell** degranulation is the neuropeptide substance P. In this study, we exposed organ cultures of neontal human foreskins for 45 min to substance P or to a substance P analogue (D-pro4, D-trp7,9)SP(4-11) that binds to the identical **mast cell** surface **receptor** but which does not provoke **histamine** release. Dermal **mast cells** were uniformly degranulated only in explants exposed to substance P, as judged by ultrastructural analysis. After subsequent culture in medium. . . for 6 h, superficial venules of explants exposed to substance P showed evidence of ELAM-1 induction, as documented histochemically using **H4**/18 monoclonal antibody. ELAM-1 was not induced by substance P analogue. Furthermore, preincubation of explants with analogue or with the **mast cell** inhibitor, cromolyn sodium, abrogated the ability of substance P to induce ELAM-1. From these results we suggest that substance P. . .

L Number	Hits	Search Text	DB	Time stamp
5	23	histamine same receptor same h4	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/05/25 14:52
1	8	thurmond-robin.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/05/25 14:47
2	13	sun-siquan.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/05/25 14:48
3	62	karlsson-lars.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/05/25 14:48
6	15	(histamine same receptor same h4) and inflammation	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/05/25 14:53
8	12	(histamine same receptor same h4) and leukocyte	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/05/25 14:54
9	7	(histamine same receptor same h4) and (mast same cell)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/05/25 14:54